# 00-Course Description, Pacing Guide, Instructional Materials

Content Area: **Mathematics**
Course(s):
Time Period: **Marking Period 1**
Length: **Blocks**
Status: **Published**

## Course Description

Credits: 5

Prerequisite: Algebra 2 Honors or Pre-Calculus Honors or 91 in Pre-Calculus CP Grades: 10, 11, 12

The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. The topics covered in this course are divided into four major themes: Exploring Data: Describing patterns and departures from patterns, Sampling and Experimentation: Planning and conducting a study, Anticipating Patterns: Exploring random phenomena using probability and simulation, Statistical Inference: Estimating population parameters and testing hypotheses. Students use graphing calculators and computer technology extensively to organize and analyze data. All students enrolled in Advanced Placement courses are required to take the Advanced Placement Examinations in May (see Policy 2429 & Program of Studies page 5).

## Pacing Guide

Pacing Guide

| Block | Marking Period 1 | Block | Marking Period 2 |
|---|---|---|---|
| 1 | Intro to AP Stats Class, Mixed Practice | 1 | 5.2 Probability Rules |
| 2 | Review | 2 | 5.3 Conditional Probability and Independence |
| 3 | Test on Ch 1 | 3 | Review |
| 4 | 2.1 Describing Location in a Distribution | 4 | Review |
| 5 | 2.2 Density Curves and Normal Distributions | 5 | Test on Ch 5 |
| 6 | Review | 6 | 6.1 Random Variables and Probability Distributions |
| 7 | Test on Ch 2 | 7 | 6.2 Transforming and Combining Random Variables |
| 8 | 3.1 Scatterplots and Correlation | 8 | 6.3 Binomial and Geometric Random Variables |
| 9 | 3.2 Least-Squares Regression | 9 | Review |
| 10 | 3.3 Transforming to Achieve Linearity | 10 | Review |
| 11 | Review | 11 | Test on Ch 6 |
| 12 | Test on Ch 3 | 12 | 7.1 What is a Sampling Distribution? |

| | | | |
|---|---|---|---|
| 13 | 4.1 Sampling and Surveys | 13 | 7.2 Sample Proportions |
| 14 | 4.1 Sampling and Surveys | 14 | 7.3 Sample Means |
| 15 | 4.2 Experiments | 15 | Review |
| 16 | 4.2 Experiments | 16 | Test on Ch 7 |
| 17 | 4.3 Using Studies Wisely | 17 | Cumulative Practice AP Test 2 |
| 18 | 4.3 Using Studies Wisely | 18 | SAFE DAY- to be used as needed in Semester 1 |
| 19 | Review | 19 | SAFE DAY- to be used as needed in Semester 1 |
| 20 | Test on Ch 4 | 20 | SAFE DAY- to be used as needed in Semester 1 |
| 21 | Cumulative Practice AP Test 1 | 21 | Review for Midterm Exam |
| 22 | 5.1 Randomness, Probability, and Simulation | 22 | Review for Midterm Exam |
| Block | Marking Period 3 | Block | Marking Period 4 |
| 1 | 8.1 Confidence Intervals: The Basics | 1 | Review |
| 2 | 8.2 Estimating a Population Proportion | 2 | Test on Ch 12 |
| 3 | 8.3 Estimating a Difference in Proportions | 3 | Cumulative AP Test 4 |
| 4 | Review | 4 | Assign all AP Practice Exams from Workbook and Define Expectations |
| 5 | Test on Ch 8 | 5 | AP Practice Exams and FRAPPY Practice/Grading |
| 6 | 9.1 Significance Tests: The Basics | 6 | AP Practice Exams and FRAPPY Practice/Grading |
| 7 | 9.2 Tests about a Popluation Proportion | 7 | AP Practice Exams and FRAPPY Practice/Grading |
| 8 | 9.3 Tests about a Difference in Proportions | 8 | AP Practice Exams and FRAPPY Practice/Grading |
| | Review | 9 | AP Practice Exams and FRAPPY Practice/Grading |
| | Test on Ch 9 | 10 | AP Practice Exams and FRAPPY Practice/Grading |
| | 10.1 Estimating a Population Mean | 11 | AP Practice Exams and FRAPPY Practice/Grading |
| 12 | 10.2 Estimating a Difference in Means | 12 | AP Practice Exams and FRAPPY Practice/Grading |
| 13 | Review | 13 | Estimated Exam Date |
| 14 | Test on Ch. 10 | 14 | Letter to a Future AP Stats Student |
| | 11.1 Tests about a Population Mean | 15 | Reflect on the Exam |
| 16 | 11.2 Tests about a Difference in Means | 16 | Review Released FRQ |
| 17 | Review | 17 | Projects using our Stats Skills |
| 18 | Test on Ch. 11 | 18 | Projects using our Stats Skills |
| 19 | Cumulative AP Practice Test 3 | 19 | Projects using our Stats Skills |

| | | | |
|---|---|---|---|
| 20 | 12.1 Chi-Square Tests for Goodness of Fit | 20 | Projects using our Stats Skills |
| 21 | 12.2 Inference for Two-Way Tables | 21 | Presentations |
| 22 | 12.3 Inference for Slope | 22 | Presentations/Class Wrap Up |

## Core Instructional & Supplemental Materials including various levels of Texts

The Practice of Statistics, 6th Edition and accompanying materials